PRACTICE EDITION

EVERYDAY SCIENCE

50 Solved MCQs

✓ Ticked ✓ Highlighted ✓ Explained

Physics | Chemistry | Biology
Earth & Space | Health | Technology

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Question 1

During a storm, why do we see lightning before we hear thunder?

- **A** **Light travels much faster than sound** ✓
- **B** Sound travels faster than light
- **C** Our eyes work faster than our ears
- **D** Thunder happens before lightning

✓ **Correct Answer: A) Light travels much faster than sound**

Everyday Science Explained

Light moves at about 300,000 km every second, while sound crawls at only about 343 metres per second in air. So the flash reaches you almost instantly and the rumble arrives later. Everyday trick: count the seconds between flash and bang, then divide by 3 to estimate how many kilometres away the storm is.

Question 2

Which gas do we breathe out in larger amounts than we breathe in?

A Oxygen

B **Carbon dioxide** ✓

C Nitrogen

D Hydrogen

✓ **Correct Answer: B) Carbon dioxide**

Everyday Science Explained

Our cells burn food with oxygen to release energy, and carbon dioxide is the waste product. Inhaled air has only about 0.04% CO_2, but exhaled air has around 4%. That is why a closed, crowded room feels stuffy and opening a window helps.

Question 3

Why does a straw look bent when it is placed in a glass of water?

A Water softens the straw

B **Light bends when it passes from water to air** ✓

C The glass magnifies the straw

D The straw really bends in water

✓ **Correct Answer: B) Light bends when it passes from water to air**

Everyday Science Explained

Light changes speed when it moves between water and air, so its path bends. This bending is called refraction. Your brain assumes light travels in straight lines, so the part under water appears shifted. It is also why a swimming pool looks shallower than it really is.

Question 4

Which vitamin does our skin make when it is exposed to sunlight?

A Vitamin A

B Vitamin C

C **Vitamin D** ✓

D Vitamin K

✓ **Correct Answer: C) Vitamin D**

Everyday Science Explained

UVB rays from the sun trigger a reaction in the skin that produces vitamin D. This vitamin helps the body absorb calcium for strong bones and teeth. A little gentle morning sunshine several times a week helps, while a lack of vitamin D can cause weak bones (rickets in children).

Question 5

Which gas is used in party balloons so that they float upwards?

A Oxygen

B Carbon dioxide

C **Helium** ✓

D Nitrogen

✓ **Correct Answer: C) Helium**

Everyday Science Explained

Helium is a very light, non-flammable gas, far lighter than the air around us. A helium balloon is pushed up by the heavier surrounding air, just like a cork rises in water. Hydrogen is even lighter but burns easily, so helium is the safe choice for balloons.

Question 6

Why does the sky look blue during the day?

A. It reflects the colour of the oceans

B. **Air scatters blue light more than other colours** ✓

C. Dust in the sky is blue

D. The sun gives only blue light

✓ **Correct Answer: B) Air scatters blue light more than other colours**

Everyday Science Explained

Sunlight contains all colours. Tiny air molecules scatter short-wavelength blue light in every direction much more than red light, so blue reaches our eyes from all over the sky. At sunrise and sunset the light travels through more air, the blue is scattered away, and we see red and orange.

Question 7

What is needed for an iron nail to rust?

A Only nitrogen

B **Oxygen and water** ✓

C Only sunlight

D Only carbon dioxide

✓ **Correct Answer: B) Oxygen and water**

Everyday Science Explained

Rusting is a slow chemical reaction in which iron combines with oxygen in the presence of water to form reddish-brown iron oxide. That is why bicycles left in the rain rust quickly. Painting, oiling or galvanising (coating with zinc) keeps air and water away and prevents rust.

Question 8

Which colour of clothing absorbs the most heat from sunlight?

A White

B Yellow

C Light blue

D **Black** ✓

✓ **Correct Answer: D) Black**

Everyday Science Explained

Dark colours absorb most of the light that falls on them and turn it into heat, while white reflects most of it. This is why people prefer white or light cotton clothes in hot summers, and why a black car seat becomes scorching hot under the sun.

Question 9

Which organ of the human body pumps blood to all parts of the body?

A Lungs

B Kidneys

C Liver

D **Heart** ✓

✓ **Correct Answer: D) Heart**

Everyday Science Explained

The heart is a strong muscular pump about the size of your fist. It beats around 70 times per minute at rest, pushing oxygen-rich blood through blood vessels to every cell. You can feel this beat as your pulse on your wrist or neck.

Question 10

Which nutrient mainly helps to build and repair muscles?

A **Protein** ✓

B Fat

C Sugar

D Water

✓ **Correct Answer: A) Protein**

Everyday Science Explained

Proteins are made of amino acids, the building blocks of muscles, skin, hair and enzymes. After play or exercise, tiny tears in muscles are repaired using protein. Eggs, milk, pulses, fish and meat are everyday protein sources.

Question 11

Why does ice float on water?

A Ice is lighter in colour

B **Ice is less dense than liquid water** ✓

C Ice is colder than water

D Water pushes ice sideways

✓ **Correct Answer: B) Ice is less dense than liquid water**

Everyday Science Explained

When water freezes, its molecules lock into an open crystal pattern that takes about 9% more space. The same mass in more volume means lower density, so ice floats. This also keeps lakes liquid underneath in winter, which protects the fish living there.

Question 12

Which kitchen ingredient releases carbon dioxide and makes cakes rise?

A Table salt

B Sugar

C **Baking soda** ✓

D Cooking oil

✓ **Correct Answer: C) Baking soda**

Everyday Science Explained

Baking soda (sodium bicarbonate) reacts with acids in the batter and with heat to release CO_2 bubbles. These bubbles get trapped and expand in the batter, making the cake soft and spongy. Without it, cakes would turn out flat and dense.

Question 13

What causes day and night on Earth?

A **Earth's rotation on its axis** ✓

B Earth's revolution around the sun

C The moon blocking the sun

D The sun moving around Earth

✓ **Correct Answer: A) Earth's rotation on its axis**

Everyday Science Explained

Earth spins once on its axis in about 24 hours. The side facing the sun has day, and the side facing away has night. This spin is also why the sun appears to rise in the east and set in the west.

Question 14

What is the main reason for the change of seasons?

A Earth's distance from the sun changes

B **The tilt of Earth's axis** ✓

C The moon's gravity

D Clouds in the sky

✓ **Correct Answer: B) The tilt of Earth's axis**

Everyday Science Explained

Earth's axis is tilted by about 23.5 degrees. As Earth orbits the sun, each hemisphere leans toward the sun at different times of the year, getting more direct light and longer days (summer), then less (winter). The distance from the sun is not the cause.

Question 15

Which device changes electrical energy into sound energy?

A Microphone

B **Loudspeaker** ✓

C Battery

D Electric bulb

✓ **Correct Answer: B) Loudspeaker**

Everyday Science Explained

A loudspeaker passes electric signals through a coil sitting in a magnetic field, which makes a cone vibrate back and forth. The vibrations push the air and we hear sound. A microphone does exactly the opposite, turning sound into electrical signals.

Question 16

Why do passengers lurch forward when a moving bus suddenly brakes?

A **Because of inertia** ✓

B Because the road pulls them forward

C Because of magnetism

D Because the bus loses its weight

✓ **Correct Answer: A) Because of inertia**

Everyday Science Explained

Inertia is the tendency of a body to keep doing what it is already doing. The bus stops, but your body wants to keep moving forward at the same speed. This is Newton's first law of motion, and it is the reason seat belts are so important.

Question 17

Which part of a plant makes food for the plant?

A Roots

B **Leaves** ✓

C Flowers

D Seeds

✓ **Correct Answer: B) Leaves**

Everyday Science Explained

Leaves contain chlorophyll, the green pigment that captures sunlight. Using sunlight, water and carbon dioxide, they make glucose and release oxygen in a process called photosynthesis. Much of the oxygen we breathe comes from this process.

Question 18

What is the pH value of pure water at room temperature?

A 0

B 7 ✓

C 10

D 14

✓ **Correct Answer: B) 7**

Everyday Science Explained

The pH scale runs from 0 to 14. Values below 7 are acidic (lemon juice, vinegar), values above 7 are basic (soap, baking soda), and exactly 7 is neutral. Pure water is neutral, so it is neither acidic nor basic.

Question 19

Which mineral is most important for strong bones and teeth?

A Sodium

B **Calcium** ✓

C Iodine

D Potassium

✓ **Correct Answer: B) Calcium**

Everyday Science Explained

Bones and teeth are made mostly of calcium compounds. Milk, yoghurt, cheese and leafy greens are rich in calcium, and vitamin D helps the body absorb it. Growing children and older adults especially need enough calcium.

Question 20

Why does food cook faster in a pressure cooker?

A. The lid traps the flavour

B. **Higher pressure raises the boiling point of water** ✓

C. It uses less water

D. The metal is thicker

✓ **Correct Answer: B) Higher pressure raises the boiling point of water**

Everyday Science Explained

Inside the sealed cooker, steam builds up pressure, which lifts the boiling point of water to about 120 degrees C instead of 100. Hotter water cooks food much faster and saves fuel. On high mountains, where air pressure is low, water boils at a lower temperature, so cooking takes longer.

Question 21

Which gas gives soft drinks their fizz?

A Oxygen

B Hydrogen

C **Carbon dioxide** ✓

D Helium

✓ **Correct Answer: C) Carbon dioxide**

Everyday Science Explained

Soft drinks are bottled with carbon dioxide dissolved in them under high pressure. When you open the bottle, the pressure drops and the gas escapes as bubbles. A warm or shaken bottle fizzes more because the gas escapes faster.

Question 22

Why do we cry while cutting onions?

A **Onions release an irritating gas that reaches our eyes** ✓

B Onions are too cold

C Onions contain salt water

D Knives make the eyes dry

✓ **Correct Answer: A) Onions release an irritating gas that reaches our eyes**

Everyday Science Explained

Cutting an onion breaks its cells and releases a sulphur compound that forms an irritating gas. When it reaches your eyes, they make tears to wash it away. Chilling the onion first or cutting it near running water reduces the tears.

Question 23

What is the SI unit of electric current?

A Volt

B Watt

C Ohm

D **Ampere** ✓

✓ **Correct Answer: D) Ampere**

Everyday Science Explained

Electric current is the flow of electric charge, measured in amperes (A), named after the French scientist Ampere. Volt measures electric push (voltage), ohm measures resistance and watt measures power. A phone charger may supply around 1 to 3 amperes.

Question 24

Why do we feel cool when sweat dries on our skin?

A Sweat is always cold

B **Evaporation takes heat away from the body** ✓

C Air becomes denser

D Sweat blocks sunlight

✓ **Correct Answer: B) Evaporation takes heat away from the body**

Everyday Science Explained

To change from liquid to vapour, sweat needs heat, and it takes this heat from our skin. This cooling by evaporation keeps body temperature steady in hot weather. It is also why a fan makes us feel cooler, and why humid days feel sticky: sweat dries slowly.

Question 25

Which layer of the atmosphere protects us from the sun's harmful ultraviolet rays?

A **Ozone layer** ✓

B Troposphere

C Ionosphere

D Exosphere

✓ **Correct Answer: A) Ozone layer**

Everyday Science Explained

The ozone layer, high in the stratosphere, absorbs most of the sun's dangerous UV radiation. Without it, skin cancer, eye damage and harm to crops would rise sharply. Banning CFC gases, once used in fridges and sprays, has helped it recover.

Question 26

Which type of mirror is used as the rear-view mirror in vehicles?

A Plane mirror

B Concave mirror

C **Convex mirror** ✓

D Cylindrical mirror

✓ **Correct Answer: C) Convex mirror**

Everyday Science Explained

A convex mirror curves outward and spreads light rays, which gives a wide field of view with a smaller image. The driver sees more of the road behind. That is why the warning 'Objects in mirror are closer than they appear' is printed on it.

Question 27

Which metal is liquid at normal room temperature?

A Iron

B **Mercury** ✓

C Copper

D Aluminium

✓ **Correct Answer: B) Mercury**

Everyday Science Explained

Mercury melts at about -39 degrees C, so it is a liquid at room temperature. It was used in old thermometers because it expands evenly when heated. Since its vapour is poisonous, modern thermometers use safer liquids or digital sensors.

Question 28

Which blood cells help the body fight infections?

A Red blood cells

B **White blood cells** ✓

C Platelets

D Plasma

✓ **Correct Answer: B) White blood cells**

Everyday Science Explained

White blood cells are the body's soldiers. They find and destroy germs such as bacteria and viruses. Red blood cells carry oxygen and platelets help blood to clot. When you have an infection, your body makes more white blood cells.

Question 29

Why is salt spread on icy roads in winter?

A. **It lowers the freezing point of water, so ice melts** ✓

B. It burns and warms the road

C. It makes the ice thicker

D. It gives colour to the road

✓ **Correct Answer: A) It lowers the freezing point of water, so ice melts**

Everyday Science Explained

Salt dissolved in water lowers its freezing point, so ice mixed with salt melts even below 0 degrees C. This is called freezing point depression. The same idea is used when making ice cream by hand: salt is added to ice to make it even colder.

Question 30

How does a microwave oven heat food?

A **By making water molecules in the food vibrate** ✓

B By burning gas inside

C By blowing hot air

D By heating only the plate

✓ **Correct Answer: A) By making water molecules in the food vibrate**

Everyday Science Explained

Microwaves are a type of radio wave that makes water molecules in food spin and vibrate rapidly. This motion creates heat inside the food. Dry items with little water heat poorly, and metal must never be put inside because it can cause sparks.

Question 31

Which organs filter waste from the blood and make urine?

A **Kidneys** ✓

B Lungs

C Stomach

D Pancreas

✓ **Correct Answer: A) Kidneys**

Everyday Science Explained

We have two bean-shaped kidneys that filter our blood many times a day. They remove waste and extra water as urine and keep the salts in the body balanced. Drinking enough water helps them to work well.

Question 32

Which gas makes up the largest part of the air we breathe?

A Oxygen

B Carbon dioxide

C **Nitrogen** ✓

D Argon

✓ **Correct Answer: C) Nitrogen**

Everyday Science Explained

Air is about 78% nitrogen, 21% oxygen and small amounts of argon, carbon dioxide and other gases. Nitrogen is mostly unreactive, which keeps oxygen from making things burn too fiercely. Plants use nitrogen compounds from the soil, which is why fertilisers contain them.

Question 33

Why do astronauts appear to float inside the space station?

A There is no gravity in space

B **They and the station are in continuous free fall** ✓

C Space air pushes them up

D They wear special shoes

✓ **Correct Answer: B) They and the station are in continuous free fall**

Everyday Science Explained

Gravity at the station's height is still about 90% as strong as on the ground. Astronauts float because they and the station are falling around Earth together, so they feel weightless. You feel a similar moment of lightness when a lift starts to go down quickly.

Question 34

Why does a cut apple turn brown after some time?

A **Oxygen in air reacts with chemicals in the apple** ✓

B The apple is getting colder

C Sunlight adds colour

D It absorbs water from the air

✓ **Correct Answer: A) Oxygen in air reacts with chemicals in the apple**

Everyday Science Explained

Cutting the apple exposes its cells to air. An enzyme helps oxygen react with natural compounds in the fruit, forming brown pigments. Squeezing lemon juice on the slices slows browning because the acid and vitamin C block this reaction.

Question 35

Lack of which vitamin causes scurvy?

A Vitamin A

B Vitamin B

C **Vitamin C** ✓

D Vitamin D

✓ **Correct Answer: C) Vitamin C**

Everyday Science Explained

Vitamin C helps make collagen, a protein that keeps gums, skin and blood vessels healthy. Sailors long ago developed scurvy, with bleeding gums and weakness, because they had no fresh fruit. Oranges, lemons, guavas and tomatoes are rich in vitamin C.

Question 36

What type of energy is stored in a stretched rubber band?

A Kinetic energy

B **Elastic potential energy** ✓

C Sound energy

D Nuclear energy

✓ **Correct Answer: B) Elastic potential energy**

Everyday Science Explained

When you stretch a rubber band, the work you do is stored in it as elastic potential energy. Releasing it converts this energy into kinetic energy, which is how a catapult launches a stone. Springs in clocks and trampolines work the same way.

Question 37

What makes the inside of a refrigerator cold?

A. Ice kept inside the walls

B. **A refrigerant that absorbs heat as it evaporates** ✓

C. Cold air from outside

D. A fan blowing hot air

✓ **Correct Answer: B) A refrigerant that absorbs heat as it evaporates**

Everyday Science Explained

A fridge circulates a special liquid called refrigerant. Inside, it evaporates and absorbs heat from the food compartment. Outside, a compressor turns it back into liquid and releases the heat, which is why the back of a fridge feels warm.

Question 38

Which insect produces honey?

A **Honey bee** ✓

B Ant

C Butterfly

D Housefly

✓ **Correct Answer: A) Honey bee**

Everyday Science Explained

Honey bees collect nectar from flowers and store it in the hive. Enzymes in the bees break down the nectar's sugars, and fanning wings evaporate extra water until it becomes thick honey. While visiting flowers, bees also carry pollen, helping plants to make fruit.

Question 39

Which gas is mainly responsible for global warming?

A **Carbon dioxide** ✓

B Oxygen

C Nitrogen

D Helium

✓ **Correct Answer: A) Carbon dioxide**

Everyday Science Explained

Carbon dioxide traps heat in the atmosphere like a blanket, a process called the greenhouse effect. Burning petrol, coal and gas adds extra CO_2, and the planet warms. Planting trees, saving electricity and using public transport can reduce our share.

Question 40

How does soap remove grease and dirt from our hands?

A **Soap molecules attach to oil and are rinsed away with water** ✓

B Soap burns the dirt

C Soap makes dirt invisible

D Soap freezes the grease

✓ **Correct Answer: A) Soap molecules attach to oil and are rinsed away with water**

Everyday Science Explained

A soap molecule has a head that loves water and a tail that loves oil. The tails grab grease and dirt, while the heads face the water, forming tiny balls called micelles that rinse away. That is why water alone cannot clean oily hands.

Question 41

What causes a rainbow to appear in the sky?

A **Dispersion of sunlight by raindrops** ✓

B Clouds painted by the sun

C Reflection from the moon

D Lightning in the clouds

✓ **Correct Answer: A) Dispersion of sunlight by raindrops**

Everyday Science Explained

Sunlight enters a raindrop, bends, reflects inside, and bends again on the way out. Each colour bends by a slightly different amount, so white light splits into seven colours (VIBGYOR). You see a rainbow when the sun is behind you and rain is falling ahead.

Question 42

Which part of the ear helps us keep our balance?

A Ear drum

B **Inner ear** ✓

C Ear lobe

D Outer ear flap

✓ **Correct Answer: B) Inner ear**

Everyday Science Explained

The inner ear has fluid-filled loops called semicircular canals. When the head moves, the fluid moves and sends signals to the brain about the body's position. When you spin around and stop, the fluid keeps moving, so you feel dizzy.

Question 43

Which food is a good source of iron to help prevent anaemia?

A White sugar

B Butter

C **Spinach** ✓

D Soft drinks

✓ **Correct Answer: C) Spinach**

Everyday Science Explained

Iron is needed to make haemoglobin, the red substance in blood that carries oxygen. Too little iron causes anaemia, with tiredness and pale skin. Spinach, lentils, dates, jaggery and meat are good sources, and vitamin C from lemon helps the body absorb iron.

Question 44

Which technology carries internet data as pulses of light through thin glass threads?

A Copper wire

B **Optical fibre** ✓

C Radio towers

D Power cables

✓ **Correct Answer: B) Optical fibre**

Everyday Science Explained

Optical fibres are hair-thin glass strands. Light signals bounce along inside by total internal reflection, travelling long distances with very little loss. This is why fibre internet is fast, and the same idea lets doctors look inside the body using endoscopes.

Question 45

Which material is a good insulator of electricity?

A Copper

B **Rubber** ✓

C Iron

D Silver

✓ **Correct Answer: B) Rubber**

Everyday Science Explained

Insulators have no free electrons to carry current, so electricity cannot flow through them. Rubber and plastic cover electric wires and the handles of electricians' tools to keep us safe from shocks. Metals like copper and silver are good conductors.

Question 46

Which gas is commonly used in fire extinguishers?

A Oxygen

B Hydrogen

C **Carbon dioxide** ✓

D Methane

✓ **Correct Answer: C) Carbon dioxide**

Everyday Science Explained

Carbon dioxide is heavier than air and does not burn. When sprayed, it covers the fire like a blanket and cuts off the oxygen supply, so the flames die out. It leaves no mess, so it is useful for electrical fires and in offices.

Question 47

Which natural body is the main cause of ocean tides?

A Mars

B **The Moon** ✓

C A comet

D Venus

✓ **Correct Answer: B) The Moon**

Everyday Science Explained

The Moon's gravity pulls on Earth's oceans and makes the water bulge toward it, giving high tide. As Earth rotates, coastlines pass through the bulges, so most places have two high tides and two low tides each day. The sun also has a smaller effect.

Question 48

Which part of the eye controls how much light enters it?

A Cornea

B Retina

C **Iris** ✓

D Eyelash

✓ **Correct Answer: C) Iris**

Everyday Science Explained

The iris is the coloured ring around the pupil. In bright light it makes the pupil smaller to protect the eye, and in dim light it widens the pupil to let in more light. This is why it takes a moment to see when you walk from sunshine into a dark room.

Question 49

Why does a metal spoon in hot tea quickly become hot at the other end?

A **Metals are good conductors of heat** ✓

B Metals attract steam

C The tea jumps up the spoon

D Spoons make their own heat

✓ **Correct Answer: A) Metals are good conductors of heat**

Everyday Science Explained

Heat travels along solids by conduction, as vibrating particles pass energy to their neighbours. Metals have free electrons which carry heat very quickly. That is why cooking pans have wooden or plastic handles, which conduct heat poorly.

Question 50

Why is washing hands with soap for at least 20 seconds so effective against germs?

A **Soap lifts and breaks germs, and water rinses them off** ✓

B Soap makes hands colder

C Soap makes germs hungry

D Soap adds vitamins to the skin

✓ **Correct Answer: A) Soap lifts and breaks germs, and water rinses them off**

Everyday Science Explained

Many germs are covered in a fatty layer. Soap molecules break up this layer and loosen the germs from the skin, and scrubbing and rinsing wash them away. Twenty seconds gives the soap enough time to work, including between fingers and under nails.

ANSWER KEY

Quick Answer Key

All 50 correct answers at a glance

Q1 A ✓	Q2 B ✓	Q3 B ✓	Q4 C ✓	Q5 C ✓
Q6 B ✓	Q7 B ✓	Q8 D ✓	Q9 D ✓	Q10 A ✓
Q11 B ✓	Q12 C ✓	Q13 A ✓	Q14 B ✓	Q15 B ✓
Q16 A ✓	Q17 B ✓	Q18 B ✓	Q19 B ✓	Q20 B ✓
Q21 C ✓	Q22 A ✓	Q23 D ✓	Q24 B ✓	Q25 A ✓
Q26 C ✓	Q27 B ✓	Q28 B ✓	Q29 A ✓	Q30 A ✓
Q31 A ✓	Q32 C ✓	Q33 B ✓	Q34 A ✓	Q35 C ✓
Q36 B ✓	Q37 B ✓	Q38 A ✓	Q39 A ✓	Q40 A ✓
Q41 A ✓	Q42 B ✓	Q43 C ✓	Q44 B ✓	Q45 B ✓
Q46 C ✓	Q47 B ✓	Q48 C ✓	Q49 A ✓	Q50 A ✓

Thank You!

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